SEQUENCE LISTING

<110> KROPSHOFER, H.
VOGT, A.
ROEHN, T.A.

<120> Identification of novel MHC class II associated candidate tumor antigens

<130> Case 21412

<140>
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<150> EP 02022224.6
<151> 2002-02-10

<160> 22

<170> PatentIn version 3.2

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Thr Leu Gln Ser Phe Arg Gln Asp Val Asp Asn Ala Ser Leu Ala Arg
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Leu Gln Ser Phe Arg Gln Asp Val Asp Asn Ala Ser Leu Ala Arg
1   5   10   15

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Leu Gln Ser Phe Arg Gln Asp Val Asp Asn Ala Ser Leu Ala
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1   5   10

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Ile Met

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Asp Lys Ala Arg Val Glu Val Glu Arg Asp Asn Leu Ala Glu Asp Ile
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Met


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Ser Pro Lys Tyr Ile Lys Met Phe Val Leu Asp Glu Ala Asp Glu Met
1               5                   10                  15


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Ser Pro Lys Tyr Ile Lys Met Phe Val Leu Asp Glu Ala Asp Glu
1               5                   10                  15


<210>    9
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Gly Ser Ser Arg Val Leu Ile Thr Thr Asp Leu Leu Ala Arg Gly Ile
1               5                   10                  15

Asp Val


<210>    10
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Lys Ser Lys Ile Glu Asp Ile Arg Ala Glu Gln Glu Arg Glu
1               5                   10


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Lys Ser Lys Ile Glu Asp Ile Arg Ala Glu Gln Glu Arg
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1   5   10

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Gly Gln Asp Leu Leu Phe Lys Asp Ala Thr Val Arg Ala Val Pro Val
1   5   10   15

Gly

<210>   13
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<213>   Homo sapiens

<400>   13

Gly Gln Asp Leu Leu Phe Lys Asp Ala Thr Val Arg Ala Val Pro Val
1   5   10   15

<210>   14
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Cys Ala Gly Thr Gly Cys Gly Thr Gly Thr Cys Ala Gly Cys Cys Ala
1   5   10   15

Ala Gly Thr Cys
         20

<210>   15
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Thr Thr Cys Cys Cys Cys Gly Cys Cys Gly Thr Gly Thr Ala Ala Ala
1   5   10   15

Thr Gly Thr

<210>   16
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<400>   16

Ala Gly Cys Gly Thr Cys Gly Ala Cys Cys Thr Gly Cys Thr Cys Ala
1   5   10   15

Gly Cys Cys Thr Gly Gly
         20

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Leu Pro Lys Pro Pro Lys Pro Val Ser Lys Met Arg Met Ala Thr Pro
1                   5                   10                  15


Leu Leu Met Gln Ala Leu Pro Met
            20


<210>    18
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Phe Arg Gln Asp Val Asp Asn Ala Ser
    725             5


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Val Glu Val Glu Arg Asp Asn Leu Ala
    725             5


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Ala Pro Pro Ala Tyr Glu Lys Leu Ser Ala Glu Gln Ser Pro Pro Pro
1                   5                   10                  15


Tyr



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Met Arg Gly Pro Ser Gly Ala Leu Trp Leu Leu Leu Ala Leu Arg Thr
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Val Leu Gly Gly Met Glu Val Arg Trp Cys Ala Thr Ser Asp Pro Glu
            20   25   30

Gln His Lys Cys Gly Asn Met Ser Glu Ala Phe Arg Glu Ala Gly Ile
        35   40   45

Gln Pro Ser Leu Leu Cys Val Arg Gly Thr Ser Ala Asp His Cys Val
        50   55   60

Gln Leu Ile Ala Ala Gln Glu Ala Asp Ala Ile Thr Leu Asp Gly Gly
65   70   75   80

Ala Ile Tyr Glu Ala Gly Lys Glu His Gly Leu Lys Pro Val Val Gly
            85   90   95

Glu Val Tyr Asp Gln Glu Val Gly Thr Ser Tyr Tyr Ala Val Ala Val
            100   105   110

Val Arg Arg Ser Ser His Val Thr Ile Asp Thr Leu Lys Gly Val Lys
        115   120   125

Ser Cys His Thr Gly Ile Asn Arg Thr Val Gly Trp Asn Val Pro Val
        130   135   140

Gly Tyr Leu Val Glu Ser Gly Arg Leu Ser Val Met Gly Cys Asp Val
145   150   155   160

Leu Lys Ala Val Ser Asp Tyr Phe Gly Gly Ser Cys Val Pro Gly Ala
                165   170   175

Gly Glu Thr Ser Tyr Ser Glu Ser Leu Cys Arg Leu Cys Arg Gly Asp
            180   185   190

Ser Ser Gly Glu Gly Val Cys Asp Lys Ser Pro Leu Glu Arg Tyr Tyr
        195   200   205

Asp Tyr Ser Gly Ala Phe Arg Cys Leu Ala Glu Gly Ala Gly Asp Val
    210   215   220

Ala Phe Val Lys His Ser Thr Val Leu Glu Asn Thr Asp Gly Lys Thr
225   230   235   240

Leu Pro Ser Trp Gly Gln Ala Leu Leu Ser Gln Asp Phe Glu Leu Leu
                245   250   255

Cys Arg Asp Gly Ser Arg Ala Asp Val Thr Glu Trp Arg Gln Cys His
            260   265   270

Leu Ala Arg Val Pro Ala His Ala Val Val Val Arg Ala Asp Thr Asp

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                   275                    280                    285

Gly Gly Leu Ile Phe Arg Leu Leu Asn Glu Gly Gln Arg Leu Phe Ser
    290                 295                 300

His Glu Gly Ser Ser Phe Gln Met Phe Ser Ser Glu Ala Tyr Gly Gln
305                 310                 315                 320

Lys Asp Leu Leu Phe Lys Asp Ser Thr Ser Glu Leu Val Pro Ile Ala
                325                 330                 335

Thr Gln Thr Tyr Glu Ala Trp Leu Gly His Glu Tyr Leu His Ala Met
            340                 345                 350

Lys Gly Leu Leu Cys Asp Pro Asn Arg Leu Pro Pro Tyr Leu Arg Trp
        355                 360                 365

Cys Val Leu Ser Thr Pro Glu Ile Gln Lys Cys Gly Asp Met Ala Val
    370                 375                 380

Ala Phe Arg Arg Gln Arg Leu Lys Pro Glu Ile Gln Cys Val Ser Ala
385                 390                 395                 400

Lys Ser Pro Gln His Cys Met Glu Arg Ile Gln Ala Glu Gln Val Asp
                405                 410                 415

Ala Val Thr Leu Ser Gly Glu Asp Ile Tyr Thr Ala Gly Lys Lys Tyr
            420                 425                 430

Gly Leu Val Pro Ala Ala Gly Glu His Tyr Ala Pro Glu Asp Ser Ser
        435                 440                 445

Asn Ser Tyr Tyr Val Val Ala Val Val Arg Arg Asp Ser Ser His Ala
    450                 455                 460

Phe Thr Leu Asp Glu Leu Arg Gly Lys Arg Ser Cys His Ala Gly Phe
465                 470                 475                 480

Gly Ser Pro Ala Gly Trp Asp Val Pro Val Gly Ala Leu Ile Gln Arg
                485                 490                 495

Gly Phe Ile Arg Pro Lys Asp Cys Asp Val Leu Thr Ala Val Ser Glu
            500                 505                 510

Phe Phe Asn Ala Ser Cys Val Pro Val Asn Asn Pro Lys Asn Tyr Pro
        515                 520                 525

Ser Ser Leu Cys Ala Leu Cys Val Gly Asp Glu Gln Gly Arg Asn Lys
    530                 535                 540

Cys Val Gly Asn Ser Gln Glu Arg Tyr Tyr Gly Tyr Arg Gly Ala Phe
545                 550                 555                 560

Arg Cys Leu Val Glu Asn Ala Gly Asp Val Ala Phe Val Arg His Thr
                565                 570                 575

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Thr Val Phe Asp Asn Thr Asn Gly His Asn Ser Glu Pro Trp Ala Ala
        580                 585             590

Glu Leu Arg Ser Glu Asp Tyr Glu Leu Leu Cys Pro Asn Gly Ala Arg
        595                 600             605

Ala Glu Val Ser Gln Phe Ala Ala Cys Asn Leu Ala Gln Ile Pro Pro
    610                 615             620

His Ala Val Met Val Arg Pro Asp Thr Asn Ile Phe Thr Val Tyr Gly
625                 630             635                 640

Leu Leu Asp Lys Ala Gln Asp Leu Phe Gly Asp Asp His Asn Lys Asn
            645             650             655

Gly Phe Lys Met Phe Asp Ser Ser Asn Tyr His Gly Gln Asp Leu Leu
        660             665             670

Phe Lys Asp Ala Thr Val Arg Ala Val Pro Val Gly Glu Lys Thr Thr
        675             680             685

Tyr Arg Gly Trp Leu Gly Leu Asp Tyr Val Ala Ala Leu Glu Gly Met
    690             695             700

Ser Ser Gln Gln Cys Ser Gly Ala Ala Ala Pro Ala Pro Gly Ala Pro
705             710             715             720

Leu Leu Pro Leu Leu Leu Pro Ala Leu Ala Ala Arg Leu Leu Pro Pro
            725             730             735

Ala Leu
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